



Attorney Docket No. 08258.P007C2

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

PERLMAN, STEPHEN G.

Serial No.: 10/618,931

Filing Date: July 14, 2003

For: **SELF-CONFIGURING, ADAPTIVE,
THREE-DIMENSIONAL, WIRELESS
NETWORK**

Examiner: Mills, Donald L.

Art Unit: 2616

Declaration Under 37 C.F.R. § 1.131

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Stephen G. Perlman, declare that:

1. All information provided in this declaration is of my own personal knowledge. All of the documents which are referred to herein and which are attached as Exhibits 1-3 to the Declaration of Bradley J. Berezna, filed concurrently herewith, were either prepared by me, at my direction, or in response to my request, and are believed to be true and correct copies. (With respect to Exhibit 3, the original document was prepared by me and subsequently marked-up by Mr. Berezna, as attested to in his Declaration.) In addition, all of the acts stated and relied upon herein were carried out in the United States of America.

2. I am the true inventor of the invention defined by the pending claims 45-72 of the above-identified patent application (P007C2), which is a continuation of

parent patent application no. 10/367,197 filed February 14, 2003 (P007). I have reviewed the above-identified P007C2 application, pending claims 45-72 of that application, as well as the parent (P007) application.

3. Prior to December 31, 2002 I conceived the idea of a repeater for a wireless network, which, in one embodiment, comprises a first transceiver operable to receive data transmitted on a first channel of a first frequency band, a second transceiver coupled to the first transceiver, the second transceiver operable to transmit data on a second channel of the first frequency band, and a third transceiver coupled to the first and second transceivers, the third transceiver operable to transmit and receive data in a second frequency band. In one embodiment, the third transceiver is operable to transmit data to, and receive data from, a destination device. Prior to December 31, 2002 I also conceived of a wireless network which includes a source device that transmits data to a destination device across a plurality of repeaters that includes at least one repeater having first, second, and third transceivers as described above. Such a repeater and wireless network is described and claimed in the above-referenced (P007C2) patent application.

4. I disclosed my invention to my attorney, Bradley J. Berezna, in meetings and discussions we had during December 2002. As part of my disclosure, I also provided Mr. Berezna with several sets of slides that I prepared for presentations made to prospective investors and business partners of a company called "OnLiveTM" that I was forming. These slides, which are attached to Mr. Berezna's declaration as Exhibits 1-3, illustrate inventive subject matter that was described and claimed in my above-referenced patent application.

5. For example, Exhibit 1 was a proposal I prepared for EchoStar Corporation that I presented to them on November 19, 2002. Slides 10-17 of Exhibit 1 show various embodiments of my wireless network invention with tuners, receivers, PCs, disk servers, routers and outdoor satellite dish-based receivers all communicating wirelessly. I discussed each of these slides with Mr. Berezna in an invention disclosure meeting we had on December 3, 2002. It was at that meeting that I described my invention for a Self-Configuring, Adaptive, Three-Dimensional, Micro-Cellular Network, which was to eventually be disclosed and claimed in the above-

identified patent application. Later that month I gave Mr. Bereznak another set of slides that I prepared for presentation to SGS Thompson Corporation on December 12, 2002, which are attached to his declaration as Exhibit 2. Later that same day (December 12, 2002) I gave this same presentation to Mr. John Riccitiello, Chief Operating Officer and Mr. Scott Crouce, Chief Technology Officer of Electronic Arts, Inc.

6. Slides 18-20 of Exhibit 2 show my invention for a wireless network that included the use of wireless repeaters that utilize non-overlapping channels in the 2.4GHz and 5GHz bands. The repeaters are self-configuring in that they adapt to environmental conditions, i.e., when interference arises somewhere in the network transmission chain, the repeaters are operable to re-configure themselves to change their transmitting/receiving channels in order to obviate interference.

7. Shortly after I gave copies of the SGS Thompson presentation slides to Mr. Bereznak I sent him a set of new slides that I was preparing for a future presentation. These new presentation slides were given to Mr. Bereznak prior to December 30, 2002 and were then marked-up by Mr. Bereznak for use as Figs. 1-23 (Exhibit 3) in my P007 & related P008 patent applications. Collectively, these slides show details of the subject matter of my pending claims 45-72 of the P007C2 patent application. For example, slide 16 (Figures 3 & 4) shows one embodiment using wireless repeating in a pipelined manner with each hop of the transmission chain utilizing a different channel in the 2.4GHz band. Re-transmission of digital data packets by wireless repeaters located within an interference range of another access point or repeater, with the data being delayed during transmission by one interval, is also shown in slides 18-20 (Figures 5-9). Slides 18-20 also show repeaters transmitting data along the wireless network utilizing upstream and downstream transceivers that operate on different frequency channels in a 5GHz frequency band. The last repeater in the transmission chain is shown communicating with a destination device in a 2.4GHz frequency band. Details of the repeater architecture showing upstream and downstream 5GHz transceivers, and an additional 2.4GHz transceiver, are also shown in slide 40 (Figure 11). A wireless network that includes a source device that transmits data to a destination device across a chain of repeaters arranged in a topology, with each of the repeaters having an upstream and downstream transceivers operating in a first frequency band, the upstream transceiver being operable to receive data on a first channel,

and the downstream transceiver being operable to transmit data on a different channel to a next repeater, with one repeater of the plurality of repeaters including an additional transceiver operating in a second frequency band, is shown in slides 22, 23, 25 and 27-29 (Figs. 12-19, respectively). Slides 18-20 (Figures 5-9) also show how data is transmitted from a source to a destination device via a chain of wireless repeaters, each repeater having upstream and downstream transceivers operating on different frequency channels in the same 5GHz frequency band, with one of the repeaters including an additional 2.4GHz transceiver operable to transmit the data to a destination device. Slide 20 (Figure 9) specifically shows how each packet is re-transmitted (i.e., repeated) during an interval delayed by one interval from an interval when the packet was received. Tuner and receiver architectural diagrams are shown in slides 40, 41-43 (Figures 11, 21-23). Examples of a wireless router, wireless repeaters, and a wireless receiver operating as described above are shown in slides 25, 27-30 (Figures 14-20).

8. Mr. Bereznak sent me a first draft of the parent patent application (i.e., his attorney docket no. 08258.P007) on January 8, 2003. I promptly reviewed the draft of the patent application and provided my comments back to Mr. Bereznak. A revised draft was delivered to me on February 12, 2003. With my approval, this revised parent application draft (P007) was filed with U.S. Patent Office on February 14, 2003.

9. I declare that, to the best of my knowledge, all statements made in this document are true, and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements are punishable by fine or imprisonment; or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the above-captioned application or any patent issued thereon.

Date: 3/26, 2008


Name: Stephen G. Perlman